THAT WHICH IS CLAIMED:

1. A composite shim having a laminate structure comprising a first composite layer including at least one circumferential fiber.

2. A composite shim according to Claim 1, wherein the laminate structure further comprises a second composite layer including a plurality of axial fibers, and wherein the first composite layer has a first side and a second side opposite the first side and the second composite layer has a first side and a second side opposite the first side, and wherein the first side of the first composite layer is laminated to the first side of the second composite layer.

3. A composite shim according to Claim 2, wherein the laminate structure further comprises a third composite layer including at least one circumferential fiber, and wherein the third composite layer is laminated to the second side of the second composite layer.

4. A composite shim according to Claim 2, wherein the laminate structure further comprises a third composite layer including a plurality of axial fibers and wherein the third composite layer is laminated to the second side of the first composite layer.

5. A composite shim according to Claim 4, wherein the second composite layer comprises a plurality of laminated composite sublayers, and wherein the third composite layer comprises a plurality of laminated composite sublayers.

6. A composite shim according to Claim 5, wherein the composite sublayers of the second and third composite layers include uniaxial fibers.

7. A composite shim according to Claim 6, wherein the uniaxial fibers of each of the composite sublayers of the second and third composite layers are oriented along an axis defining an axis of each of the composite sublayers, and wherein the composite sublayers are arranged such that the axes of adjacent composite sublayers are offset by an angle.

8. A composite shim according to Claim 7, wherein the second composite layer includes at least four composite sublayers, and wherein the third composite layer includes at least four composite sublayers.

9. A composite shim according to Claim 8, wherein the four composite sublayers of the second composite layer are arranged such that their respective axes are in a 0°, +45°, -45°, and 90° orientation, and wherein the four composite sublayers of the third composite layer are arranged such that their axes are in a 90°, -45°, +45°, and 0° orientation.

10. A composite shim according to Claim 4, wherein the second composite layer includes a layer selected from the group consisting of biaxial and triaxial woven cloth, and wherein the third composite layer comprises a layer selected from the group consisting of biaxial and triaxial woven cloth.

11. A composite shim according to Claim 1, wherein the first composite layer further includes a polymeric material.

12. A composite shim according to Claim 11, wherein the polymeric material comprises epoxy.

13. A composite shim according to Claim 1, wherein the at least one hoop wound fiber is selected from the group consisting of carbon, graphite, glass, aramid and boron.

14. A composite shim according to Claim 1, wherein the composite shim has a thickness between about 0.01 inches to about 0.5 inches.

15. A composite shim having a laminate structure comprising a first composite layer including a fiber that is substantially concentrically oriented.

16. A composite shim according to Claim 15, wherein the laminate structure further comprises a second composite layer laminated to the first composite layer, wherein the second composite layer includes a plurality of axial fibers.

17. A composite shim according to Claim 16, wherein the second composite layer comprises a plurality of laminated composite sublayers.

18. A composite shim according to Claim 15, wherein the first composite layer comprises a plurality of fibers that are substantially concentrically oriented.

19. A composite shim according to Claim 18, wherein the plurality of fibers that are substantially concentrically oriented are arcuate shaped fibers.

20. A composite shim according to Claim 19, wherein the plurality of arcuate shaped fibers form a plurality of circles oriented as substantially concentric rings.

21. A laminated bearing structure comprising:

a plurality of resilient layers; and

a plurality of shims alternating with and laminated to the plurality of resilient layers, wherein at least one of the shims is a composite shim having a laminate structure comprising a first composite layer including at least one circumferential fiber.

22. A laminated bearing structure according to Claim 21, wherein the composite shim having a laminate structure further comprises a second composite layer including a plurality of axial fibers, and wherein the first composite layer has a first side and a second side opposite the first side and the second composite layer has a first side and a second side opposite the first side, and wherein the first side of the first composite layer is laminated to the first side of the second composite layer.

23. A laminated bearing according to Claim 22, wherein the composite shim having a laminate structure further comprises a third composite layer including a plurality of axial fibers and wherein the third composite layer is laminated to the second side of the first composite layer.

24. A laminated bearing according to Claim 23, wherein the second composite layer comprises a plurality of laminated composite sublayers, and wherein the third composite layer comprises a plurality of laminated composite sublayers.

25. A laminated bearing according to Claim 24, wherein the composite sublayers of the second and third composite layers include uniaxial fibers.

26. A laminated bearing according to Claim 25, wherein the uniaxial fibers of each of the composite sublayers of the second and third composite layers are oriented along an axis defining an axis of each of the composite sublayers, and wherein the composite sublayers are arranged such that the axes of adjacent composite sublayers are offset by an angle.

27. A laminated bearing according to Claim 26, wherein the second composite layer includes at least four composite sublayers, and wherein the third composite layer includes at least four composite sublayers.

28. A laminated bearing according to Claim 27, wherein the four composite sublayers of the second composite layer are arranged such that their respective axes are in a 0°, +45°, -45°, and 90° orientation, and wherein the four composite sublayers of the third composite layer are arranged such that their axes are in a 90°, -45°, +45°, and 0° orientation.

29. A laminated bearing according to Claim 21, wherein the composite shim has a thickness between about 0.01 inches to about 0.5 inches.

30. A composite shim having a laminate structure comprising a first composite layer including at least one fiber that surrounds a section of the first composite layer.

31. A composite shim according to Claim 30 wherein the at least one fiber is circumferential.

32. A composite shim according to Claim 30 wherein the at least one circumferential fiber is comprised of a plurality of concentric circles.

33. A composite shim according to Claim 30 wherein the at least one circumferential fiber is comprised of a spiral.

34. A composite shim according to Claim 30 wherein the laminate structure further comprises a second composite layer including a plurality of axial fibers, and wherein the at least one circumferential fiber is comprised of a plurality of concentric circles.

35. A composite shim according to Claim 33 wherein the laminate structure includes a plurality of alternating first and second composite layers.

36. A composite shim according to claim 34 wherein the axial fibers are

oriented at angles, the orientation angles of axial fibers of consecutive layers being different.

37. A composite shim according to Claim 33 wherein the laminate structure further comprises a second composite layer including a plurality of radial fibers, and wherein the at least one circumferential fiber is comprised of a plurality of concentric circles.

38. A composite shim according to Claim 36 wherein the laminate structure includes a plurality of alternating first and second composite layers.

39. A composite shim according to Claim 30 further comprising at least one second composite layer comprising a plurality of radially extending fibers, and at least one third composite layer comprising a plurality of uniaxial fibers.

40. A composite shim according to Claim 38 wherein the shim includes a plurality of first, second and third composite layers.

41. A composite shim according to Claim 30 wherein the shim is frustoconical.

42. A composite shim according to Claim 30 wherein the shim is cylindrical.

43. A composite shim according to Claim 42 wherein the shim has an axis, the at least one fiber surrounding the axis.

44. A composite shim according to Claim 43 wherein the shim further comprises at least one longitudinal fiber.

45. A composite shim according to Claim 44 wherein the shim further

comprises at least one longitudinal fiber that extends diametrically.

46. A composite shim according to Claim 44 wherein the shim further comprises at least one longitudinal fiber extends around the outside of the shim.